Analysis and Forecasting of the Earth’s Temperature Using Methods Mathematical Statistics and Synergetic Information Theory

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ABSTRACT

The dynamics of temperature change in the lower troposphere of the Earth is analyzed. The presence of trend component in temperature dynamics of Earth from 1880-2017 was revealed. The method of forecasting climate warming on Earth in the conditions of the greenhouse effect has been tested. The method of correlation analysis revealed the presence of significant correlations in the Earth’s lower troposphere between temperature and carbon dioxide concentration, temperature, and methane concentration. A similar conclusion was also made on the basis of the strong elongation of the shape of the correlation fields between these signs. A linear regression model was used, which made it possible to forecast the change in temperature depending on the carbon dioxide concentration. The temperature dynamics in the lower troposphere of the Earth is analyzed by the methods of the synergetic theory of information using entropy and negentropy. Calculations showed that the behavior of the entropy and negentropy can also predict an anomalous change in the temperature of the Earth.

KEYWORDS

Carbon Dioxide, Chaos, Correlation Analysis, Entropy, Fisher Criterion, Global warming, Irvine Method, Methane, Negentropy, Order, Student’s Test, Troposphere
INTRODUCTION

Analyzing the average temperature in the world since the end of the 19th century, researchers came to the conclusion that there is a pronounced warming trend.

However, during the 1960s, weather experts discovered that over the past few decades, this trend has changed to cooling. As a result, in the early 1970s, some scientists predicted continuous, gradual cooling.

On September 7, 2013, the English Daily Mail published a report by a group of climate scientists on changes in the Arctic ice sheet. It turned out that that year it increased by 60%. Continuous ice cover extends today from the northern Canadian islands to the northeastern coast of Russia. Thus, it is noted that the temperature forecasts of globalists do not have a scientific basis and are overestimated by at least 70%.

Mark Marano, former employee of U.S. Senate Environmental and Public Work Committee wrote on its website: “As a long-time observer of global weather change, I can say that the 2013 weather patterns were one of the most destructive for global warming advocates. An increase in ice area occurs at both poles of the Earth.

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Until recently, the public was misinformed that global warming caused by human activity is leading to ever more powerful hurricanes, droughts, floods and monsoons, to a strong rise in sea level, to intense melting of polar ice. It was argued that the temperature at the end of the 20th century was the highest than ever before, and computer models can predict the temperature with high accuracy 100 years ahead. Now it turns out that none of these statements is true.

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The report of the Intergovernmental Panel on Climate Change (IPCC) on September 27, 2013 for the first time, acknowledges that global warming unexpectedly for the globalists “has paused since 1998 and does not recognize any signs of renewal,” and the authors of the report “did not fully understand the reasons for stopping the temperature rise beyond the last 15 years”, despite the constant increase in the content of carbon dioxide in the Earth’s atmosphere. The report notes that the overestimation of the rise in Earth’s temperature was due to the increasing role of greenhouse gases in computer models. It is

also recognized that climate science still contains uncertainties in assessing the impact of carbon dioxide emissions on the growth of near-Earth temperature, the rate of growth of sea-level and the extinction of plants and animals. It is emphasized that the Earth is probably less sensitive to carbon dioxide emissions than previously thought, and the justification for assessing the impact of carbon dioxide emissions on the rise in Earth temperature raises serious questions. The authors of the report have some uncertainties and serious questions!

Globalists do not pay attention to the fact that in addition to carbon dioxide in the Earth’s atmosphere are greenhouse gases such as water vapor, methane, and ozone.

The carbon dioxide content in the earth’s atmosphere is 0.03–0.04% and that of water vapor is 0.1–0.4%, i.e. 1-2 orders of magnitude more. Carbon dioxide absorbs Earth’s radiation several times less than water vapor. The fluctuation of atmospheric humidity is not related to human activity and dampens fluctuations in carbon dioxide concentration. Therefore, the effect of changes in carbon dioxide on the change in near-Earth temperature is minimal.
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